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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,400	06/09/2005	Clyde James Barnes	PPD 50679	5701
26748 7590 02/19/2008 SYNGENTA CROP PROTECTION, INC. PATENT AND TRADEMARK DEPARTMENT 410 SWING ROAD GREENSBORO, NC 27409				
EXAMINER ARNOLD, ERNST V				
ART UNIT		PAPER NUMBER		
1616				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/509,400

**Applicant(s)**

BARNES ET AL.

**Examiner**

ERNST V. ARNOLD

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claim 2 has been cancelled. Claims 1 and 3-23 are under examination.

#### **Withdrawn rejections:**

Applicant's amendments and arguments filed 11/13/07 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1 and 3-23 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Moreno et al. (US 5,324,708) in view of Wikeley (US 6,107,249) and with respect to claim 21 Nielson et al. (US 5,795,847).

Applicant claims an aqueous glyphosate concentrate composition comprising glyphosate and a poly(alkylene oxide) alkanol and a method of reducing the foaming of a glyphosate concentrate composition.

### **Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Moreno et al. clearly disclose a composition comprising glyphosate isopropylammonium salt and isotridecyl alcohol polyglycol ether which would be a low foaming herbicidal composition:

### **EXAMPLE II.37**

<b>Solid glyphosate mono-ipa-salt</b>	<b>68.00%</b>
<b>Ethoxylated-nonyl-phenol</b>	<b>2.00%</b>
<b>Ethoxylated-alkylamine</b>	<b>4.50%</b>
<b>Ethoxylated fatty amine</b>	<b>9.60%</b>
<b>Isotridecyl alcohol-polyglycoether</b>	<b>7.30%</b>
<b>KCl</b>	<b>3.45%</b>
<b>1-naphthyl acetic acid</b>	<b>0.05%</b>
<b>Boric acid</b>	<b>0.10%</b>

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Applicant discloses that isotridecyl alcohol polyglycol ether is Genapol X080 having  $n = 8$  and represents a compound of the instant formula I in instant claim 1 (Page 9, lines 6-7). It is the Examiner's position that the ethoxylated nonyl phenol is additional anti-foam and that ethoxylated fatty amine is an additional bioperformance enhancing agent in the absence of evidence to the contrary. Moreno et al. disclose compositions with 0.1 to 99.9 percent of the actives (column 7, lines 23-25). Moreno et al. disclose method of killing unwanted plants by diluting the composition with water and applying it to plants (claims 7-12). Moreno et al. disclose adding ammonium sulphate to the composition (column 8, lines 47-51). Moreno et al. disclose adding alkylpolyglycosides to the composition (column 8, line 30).

Wikeley et al. teach low foam compositions comprising glyphosate acid or salt (ammonium or alkali metal salt) with alkylglycoside surfactant and quaternary ammonium surfactants as well as a method to kill plants with the composition (column 5, lines 1-9; column 2, lines 6-59 and claims 1-11). Wikeley teaches glyphosate in the amount of 50 to 500 g/L (column 5, lines 10-15). The alkylglycoside is present from 20 parts by weight per 100 parts by weight glyphosate to 100 parts by weight per 100 parts by weight glyphosate (claim 9).

Nielson et al. teach glyphosate and ammonium sulfate compositions comprising 5-60% ammonium sulfate by weight as well as a  $C_{12}$ - $C_{15}$  alkylalcohol ethoxylated with 13 oxyethylene units (Genapol OX-130) and alkylglycosides (Claims 1-13; and column 10, line 23 to column 12, line 14).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

1. Moreno et al. do not expressly teach a composition comprising 1-20 g/l of polyethoxylated alkanol; 80 to 250 g/l of the bioperformance adjuvant; 400-500 g/l to 340-380 g/l or the limitation of 240 to 550 g/l glyphosate in the method of reducing the foaming of glyphosate concentrates. Wikeley cures this deficiency in Moreno et al. by providing basic guidelines on the amount of glyphosate in g/l and the amount of alkylglycoside.

2. Moreno et al. do not expressly teach a composition comprising 80 to 140 g/l ammonium sulfate. This deficiency in Moreno et al. is cured by the teachings of Nielson et al.

**Finding of prima facie obviousness**

**Rational and Motivation (MPEP 2142-2143)**

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make the composition of Moreno et al. with a 1-20 g/l of polyethoxylated alkanol; 80 to 250 g/l of the bioperformance adjuvant; and 400-500 g/l glyphosate or the narrower limitation of 340-380 g/l glyphosate or the limitation of 240 to 550 g/l glyphosate in the method of reducing the foaming of glyphosate concentrates, as suggested by Wikeley, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Moreno et al. teach broadly glyphosate but not the exact amount in g/l and Wikeley cures this deficiency by providing a basic guideline of how much glyphosate in g/l should be present for one of ordinary skill in the art to follow. To arrive at the amount of glyphosate, bioperformance adjuvant, polyethoxylated alkanol and other additives is merely routine optimization of the composition by one of ordinary skill in the art. It is the Examiner's position that mixing the solution of Moreno et al. intrinsically would reduce the foam of glyphosate. Moreno et al. simply did not state the instantly claimed amount of glyphosate in g/l.

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make the composition of Moreno et al. with 80 to 140 g/l of ammonium sulfate as suggested by Nielson et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Moreno et al. teach adding ammonium sulfate and Nielson et al. provide guidelines on how much to add. It is then merely a matter of routine optimization by one of ordinary skill in the art to arrive at the instantly claimed amount.

**Summary:** The art clearly teaches compositions comprising the instantly claimed polyethoxylated alkanol and glyphosate. The other instantly claimed components, bioperformance adjuvants and ammonium sulfate, are common additives to glyphosate formulations. The method of reducing the foaming of a glyphosate concentrate is intrinsic in mixing the composition of Moreno et al. with the amounts of glyphosate taught by Wikeley in g/l and the method of killing plants is also taught.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

**Response to arguments:**

Applicant asserts that Moreno et al. is directed to solid compositions and not the instantly claimed aqueous glyphosate concentrate. The Examiner respectfully disagrees. Moreno et al. clearly teach dissolving their invention in the required amount of water and the liquid that is obtained can be used in the field as needed (column 10, lines 42-48). Thus, if one of ordinary skill in the art desired a concentrated aqueous solution of glyphosate for use then one of ordinary skill in the art would have used less water to make an aqueous concentrate. Besides, in order to arrive at the instantly claimed concentration values of glyphosate it would have to be in solution! With respect to Applicant's earlier arguments concerning nonylphenol ethoxylates as anti-foam



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agents, the Examiner does not find these arguments persuasive because Applicant has merely stated that these are non-ionic surfactants and has not addressed their anti-foam properties. For Applicant's benefit, the Examiner is including a report on the antifoam behavior the nonionic nonylphenol ethoxylate surfactants supporting the Examiner's position (Chaisalee et al. Journal of Surfactants and Detergents 2003, 6(4), 345-351). Please note in particular the right column and Experimental procedures on page 346 and the results and discussion section which discuss the antifoam behavior of nonylphenol polyethoxylates.

Applicant asserts that there is no motivation to modify the solid compositions of Moreno et al. to arrive at an aqueous concentrate. Respectfully, the Examiner cannot agree. Moreno et al. teach dissolving the composition in water to form aqueous solutions as discussed above.

***Conclusion***

No claims are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (6:15 am-3:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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